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(The following names are arranged alphabetically by last name.)

26. The method of claim 25 wherein the regulating step further comprises regulating a pressure of the flow.

27. The method of claim 19 further comprising regulating a volume of the fluid injected through the injection port.

28. The method of claim 19 further comprising the step of stabilizing the distal end adjacent to the injection site by creating a fluid seal between the tissue and the distal end.

29. The method of claim 19 further comprising positioning the injection port just below a surface of the tissue.

30. A catheter for delivering fluid to tissue of a patient, comprising:
an injection catheter comprising a shaft having a proximal end, a distal end and an infusion lumen extending therethrough;
a high pressure source for generating a high transient pressure in the fluid to be injected into the tissue; and
an injection port at the distal end of the injection catheter in fluid communication with said infusion lumen, wherein
the high pressure source is in fluid communication with the infusion lumen and is sufficient to cause the fluid to pass through the injection port and enter the tissue.

31. The catheter of claim 30 further comprising an outer sheath coaxially disposed around the shaft wherein an annular lumen is formed between an inner surface of the outer sheath and an outer surface of the shaft.

32. The catheter of claim 31 further comprising a vacuum source in fluid communication with said annular lumen wherein when the distal end of the injection catheter is place in contact with the tissue and a vacuum is applied to the annular lumen, the distal end of the injection catheter is stabilized against the tissue.

33. The catheter of claim 30 wherein the means for generating high transient pressure in the fluid comprises a syringe containing the fluid.